

REMARKS

In the drawings, corrections have been made to correct minor errors, including errors in the reference signs. Replacement Drawing Sheets and Annotated Marked-up Drawing Sheets are attached hereto.

In the specification, amendments have been made to correct minor typographical errors and to correct errors in use of reference signs.

Claims 1, 30, 31, 36, 40, and 41 have been amended to more clearly define the invention claimed, including the correction of typographical errors. Claims 1-52 are now pending in the application.

No new material is added by this amendment.

The Objection to the Drawings:

In the Office Action of August 13, 2003, the Examiner objected to the drawings as failing to include reference signs included in the description, and as including reference signs not mentioned in the description. By this amendment, the drawings have been corrected to include proper reference signs and to exclude improper reference signs. The specification has also been corrected to include proper references.

Rejections of the Claims under 35 USC § 102:

In the Office Action, the Examiner rejected claims 1, 2, 5-11, 20, 23-28, 30, 36, and 37 as being anticipated by Ferrari et al. (U.S. Patent No. 6,190,357). Applicant

believes that the claims as amended are believed allowable over Ferrari et al., as set forth below.

Each of independent claims 1, 30, and 36 as amended recites a system having multiple probes, namely an antegrade probe and a retrograde probe. Additionally, each of claims 1, 30, and 36 recites a portion of the retrograde probe, namely the guidewire port, as being co-aligned with the antegrade probe. By contrast, Ferrari et al. has no teaching or suggestion of using multiple probes in alignment. Accordingly, independent claims 1, 30, and 36 as amended are allowable over Ferrari et al.

The Office asserted that Ferrari et al. disclosed a system having an antegrade probe and a retrograde probe. Applicant respectfully traverses this assertion, and believes that Ferrari et al. provides no such teaching. The sections of Ferrari et al. cited by the Office in support of its position (namely: col. 2, lines 23-26; col. 10, lines 40-67; col. 11; col. 14, lines 5-10; and Figs. 1-9b) are directed toward single probe assemblies, and make no teaching or suggestion of a system comprising both an antegrade probe and a retrograde probe.

The Office asserted that Figures 1-9b, 18, 21, and 22 of Ferrari et al. show an antegrade probe and a retrograde probe, with the probes placed over a guidewire such that the guidewire resides in the antegrade probe and in the retrograde probe, with the retrograde guidewire port co-aligned with the antegrade guidewire port. Each of the figures cited by the Office, however, depicts only a single probe. Moreover, no teaching or suggestion of multiple probes, or of alignment of separate probes, or of multiple probes sharing a common guidewire, is presented in the cited portions of Ferrari et al.

Ferrari et al. is directed toward various designs for a perfusion catheter and similar occlusion devices, and does not address the use of multiple aligned probes of the current invention. Ferrari et al. does disclose the use of a second cannula (see Col. 21, lines 21-42; Fig. 25b), but the second cannula is depicted as being on the other side of the patient's body from the primary cannula, and is described as providing "sufficient arterial perfusion downstream of the entry site." Ferrari et al., col. 21, lines 21-22. Ferrari et al.'s disclosure of a second cannula, which is some distance from and not aligned with

the primary cannula, teaches away from the current invention's claimed system of antegrade and retrograde probes that are co-aligned to one another.

Dependent claims 2, 5-11, 20, and 23-28 depend from claim 1, and are thus believed allowable insofar as claim 1 is allowable. Additionally, several of these dependent claims include further limitations to further distinguish them over Ferrari et al. For example, claim 2 recites the antegrade probe and retrograde probe placed over a common guidewire, and having an antegrade guidewire port and a retrograde guidewire port in alignment with each other. Claim 5 recites that the antegrade and retrograde probes are each engageable with the tissue. Claim 6 recites the antegrade and retrograde probes are mutually engageable with the tissue. Accordingly, claims 2, 5-11, 20, and 23-38 that depend from claim 1 are believed allowable over Ferrari et al.

Claim 37 depends from independent claim 36, and is allowable insofar as claim 36 is allowable over Ferrari et al.

Rejections of the Claims under 35 USC § 103:

In the Office Action, the Examiner rejected claims 3, 4, 12-19, 21, 22, 29, 31-35, and 38-52 as being obvious over Ferrari et al. Applicant believes that the claims as amended are believed allowable over Ferrari et al., as set forth below.

As set forth previously in these remarks with respect to the 35 USC § 102 rejection, independent claim 1 as amended recites a system having multiple probes, namely an antegrade probe and a retrograde probe. Additionally, claim 1 recites a portion of the retrograde probe, namely the guidewire port, as being co-aligned with the antegrade probe. By contrast, Ferrari et al. has no teaching or suggestion of using multiple probes in alignment. Accordingly, independent claim 1 as amended is allowable over Ferrari et al. Dependent claims 3, 4, 12-19, 21, 22, and 29 depend from claim 1, and are thus believed allowable over Ferrari et al. Moreover, claims 3, 4, 12-19, 21, 22, and 29 each contain additional limitations that further distinguish them over Ferrari et al.

Claim 3 recites a second guidewire, with the antegrade probe having two guidewire lumens and ports, and the retrograde probe having two guidewire lumens and ports. Claim 4 depends from claim 3 and further recites the first and second guidewires aligning the distal portions of the probes. Ferrari et al. provides no suggestions toward such a combination of elements. While Ferrari et al. discusses that multiple lumens may be used in a tubular body, Ferrari et al. makes no suggestion that such lumens should be used to accommodate multiple guidewires. Moreover, Ferrari et al. does not teach or suggest that multiple probes could share common guidewires, or that the common guidewires could be used to align antegrade and retrograde probes.

Claims 12-19 depend from claim 1, but further recite one or more tissue fasteners at the distal end of a probe. Ferrari et al. provides no such teaching or suggestion. While Ferrari et al. refers to additional lumens that can be used for tool access, Ferrari et al. makes no suggestion of multiple aligned probes with at least one the probes having tissue fasteners at the probe distal end. Accordingly, claims 12-19 are allowable over Ferrari et al.

Claims 21 and 22 depend from claim 1, but further recite at least two alignment arms flexibly attached to a probe. No such teaching or suggestion is present in Ferrari et al.

Claim 31 recites a system having multiple probes, namely an antegrade probe and a retrograde probe. Additionally, claim 31 recites a portion of the retrograde probe, namely the guidewire port, as being co-aligned with the antegrade probe. As discussed previously in this Amendment, Ferrari et al. has no teaching or suggestion of using multiple probes in alignment. Accordingly, independent claim 31 as amended is allowable over Ferrari et al. as are dependent claims 32-35 which depend from claim 31.

Claim 38 recites a method of stabilizing tissue, comprising delivering antegrade and retrograde probes to the tissue from antegrade and retrograde approaches, aligning the probes longitudinally, using one or more of the probes to stabilize the tissue, and using one or more of the probes to fasten the tissue. Ferrari et al.'s teaching of perfusion catheters provides no suggestion of multiple aligned probes, much less of the method of claim 38. Claim 38 is thus believed allowable over Ferrari et al.

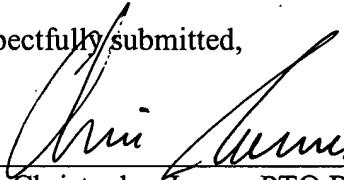
Claims 39-52 depend from claim 38, and thus are also allowable over Ferrari et al. Claims 39-52 also include further limitations which further distinguish them from Ferrari et al. For example, claim 41 recites using the guidewire to pierce the atrial septum, advancing the guidewire to pass through the mitral valve and out an exit point, advancing the antegrade probe over the guidewire through the entry point to the mitral valve, and advancing the retrograde probe over the guidewire through the exit point to the mitral valve. Accordingly, claims 39-52 are allowable over Ferrari et al.

CONCLUSION

Applicant believes all claims are in condition for allowance, and respectfully requests that a timely Notice of Allowance be issued in this case.

Dated: Dec. 12, 2003

Respectfully submitted,

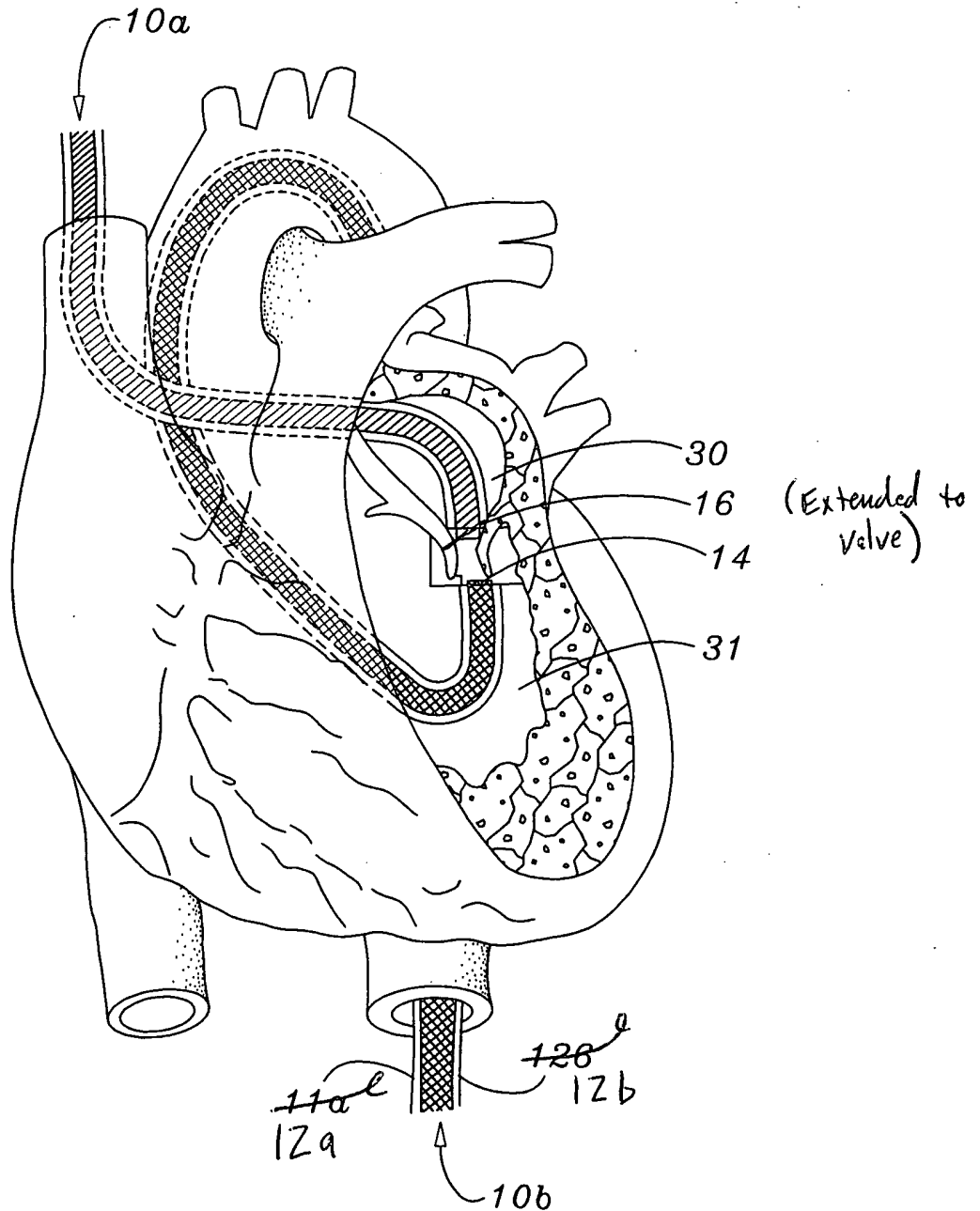


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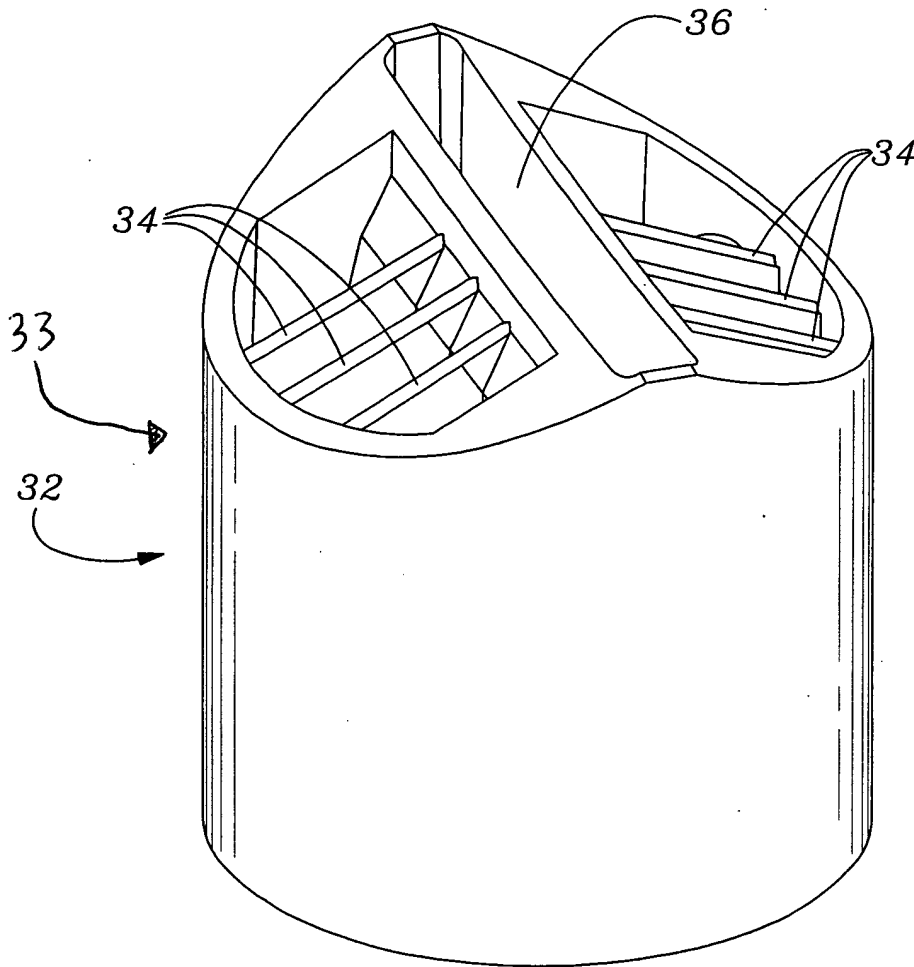
Fig. 1





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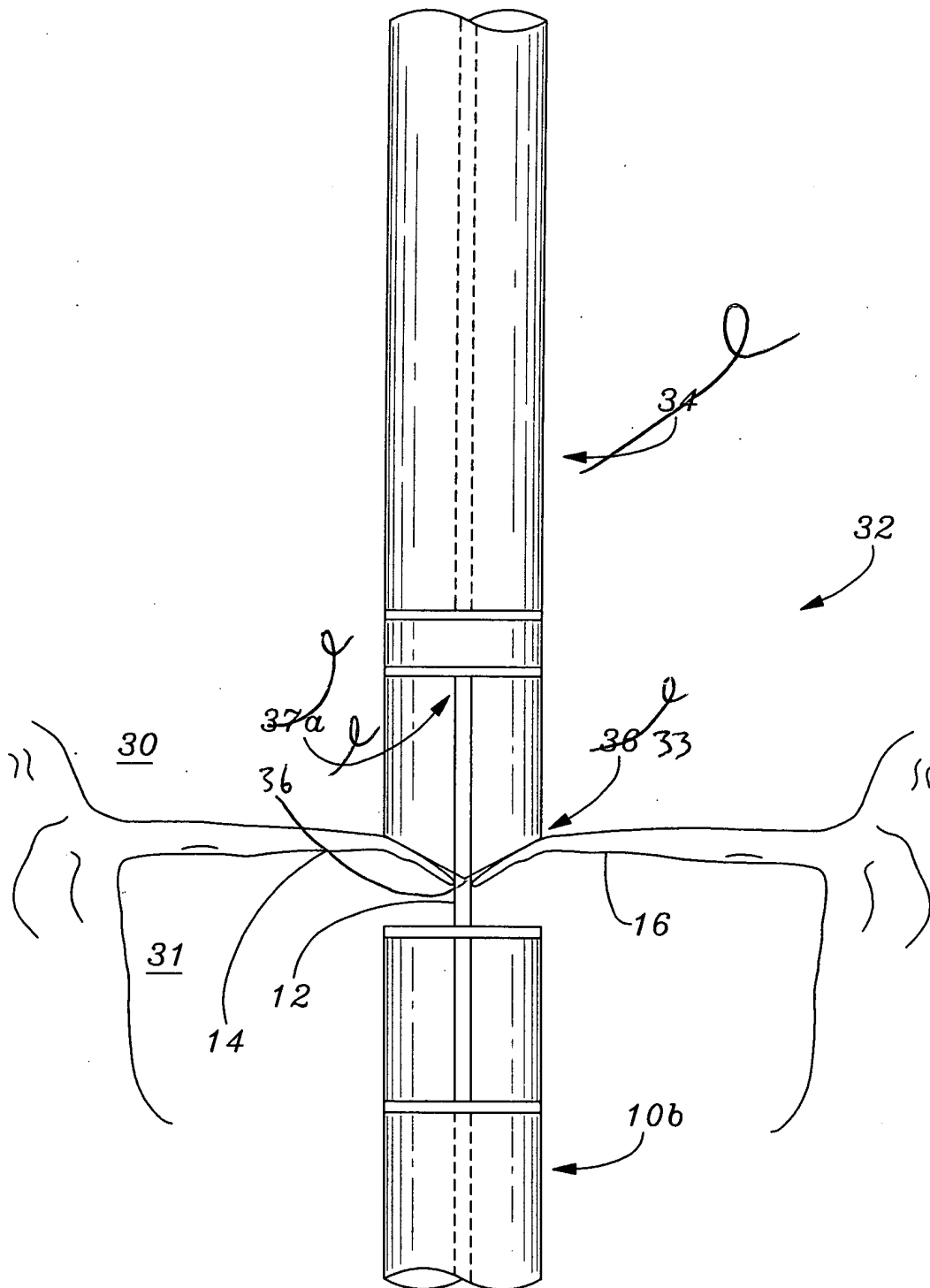
Fig. 2



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Fig. 2a





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Fig.3a

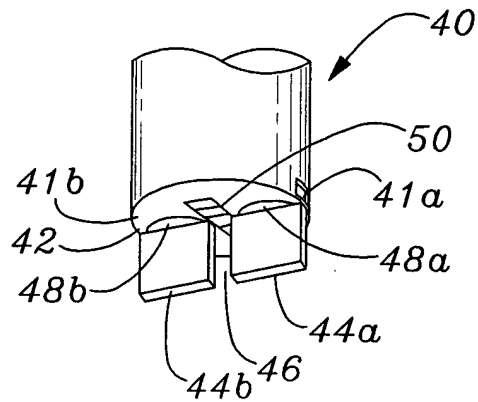


Fig.3b

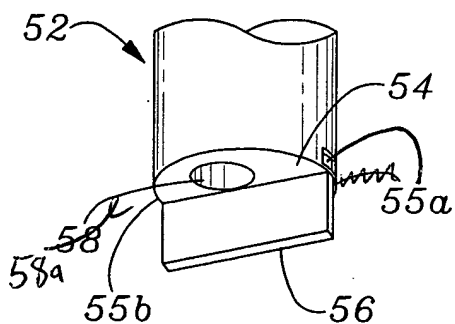


Fig.3c

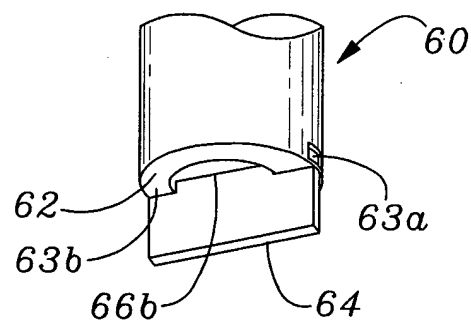


Fig.3d

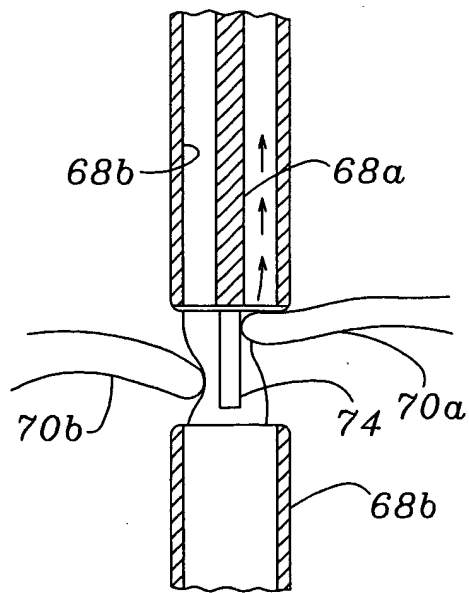
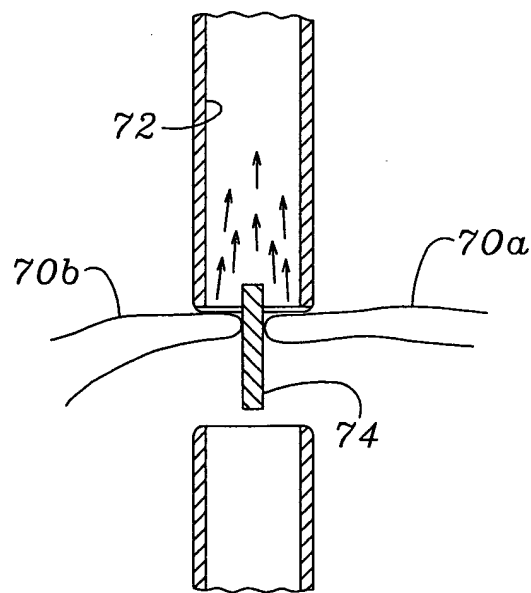


Fig.3e





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Fig. 4a

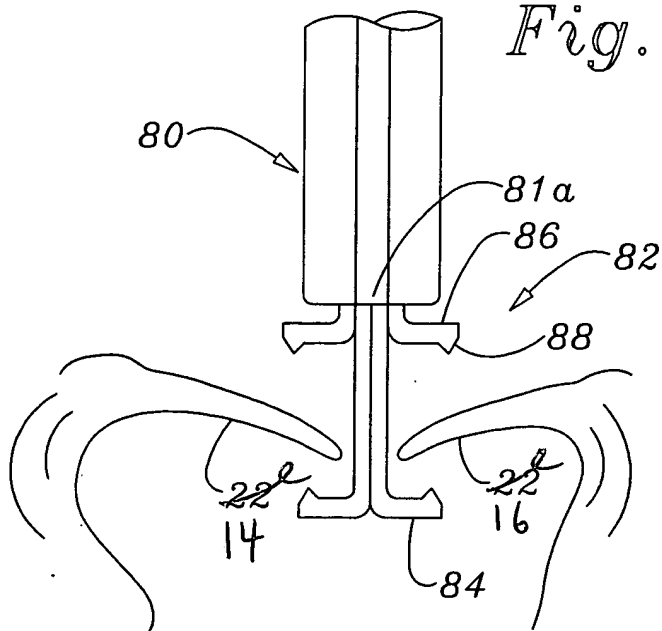


Fig. 4b

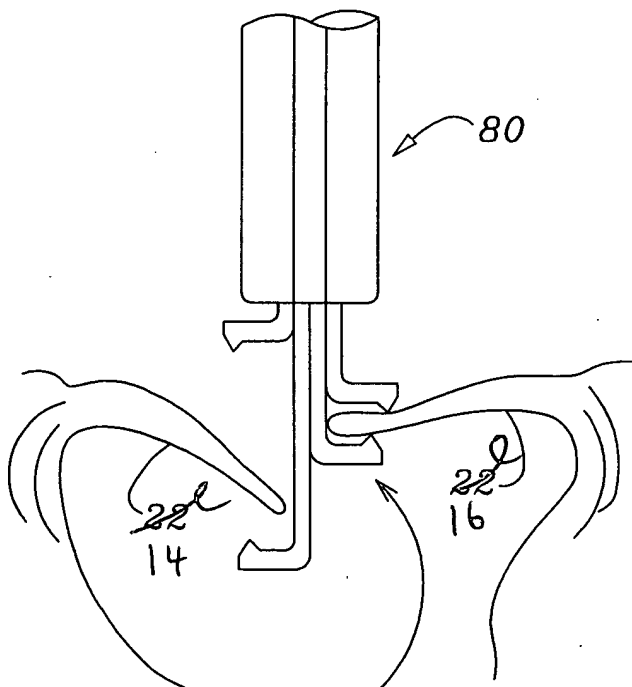
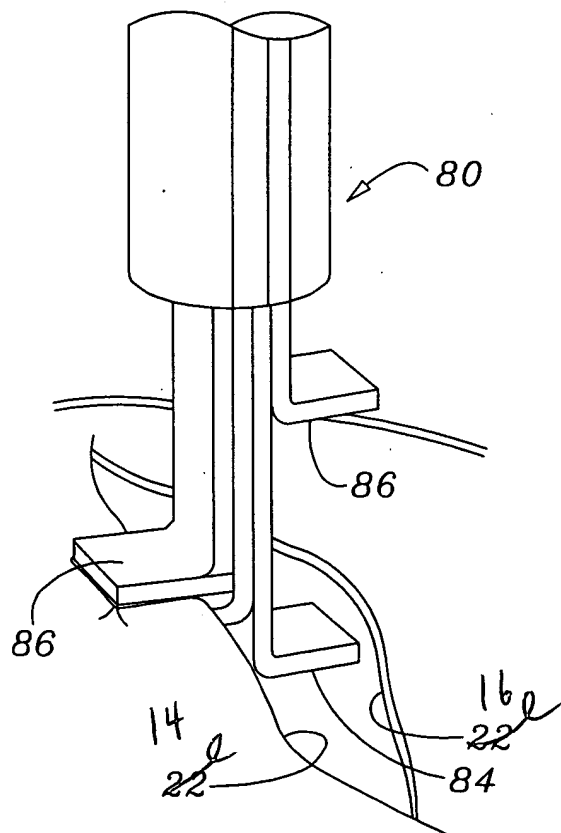


Fig. 4c





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Fig. 8A

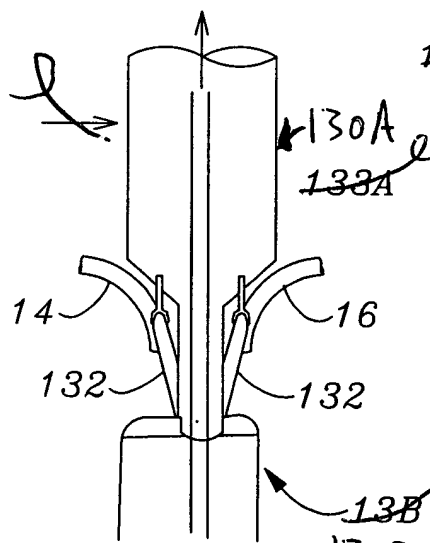


Fig. 8B

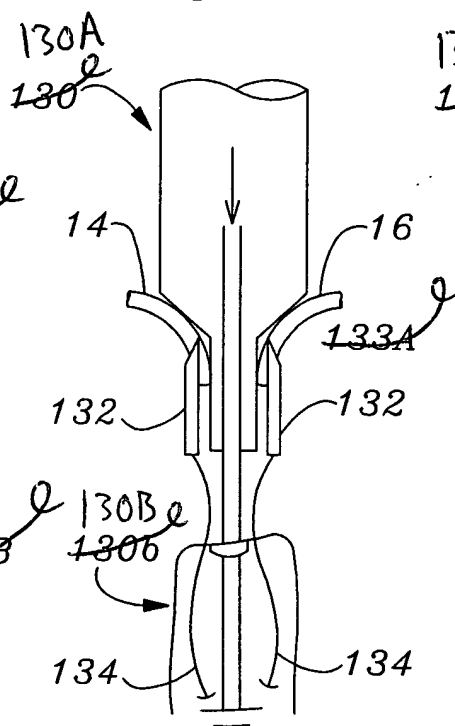
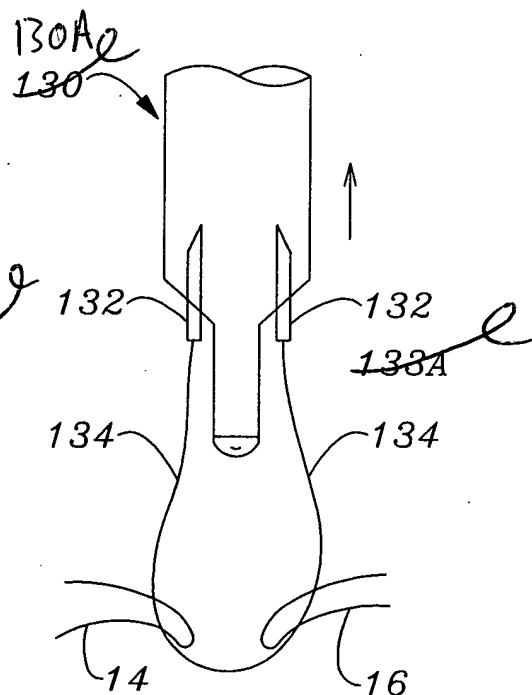


Fig. 8C





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Fig. 10A

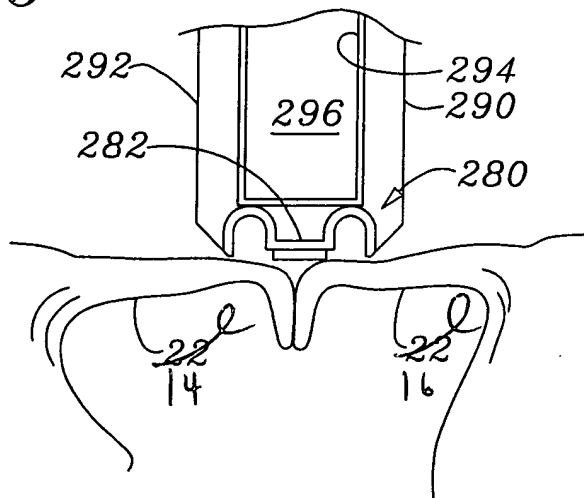


Fig. 9A

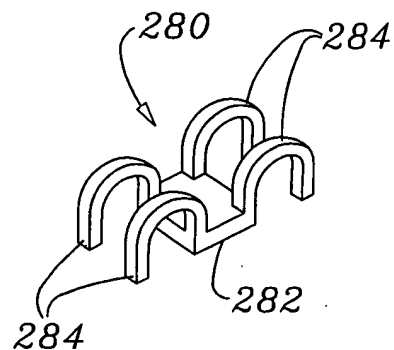


Fig. 10B

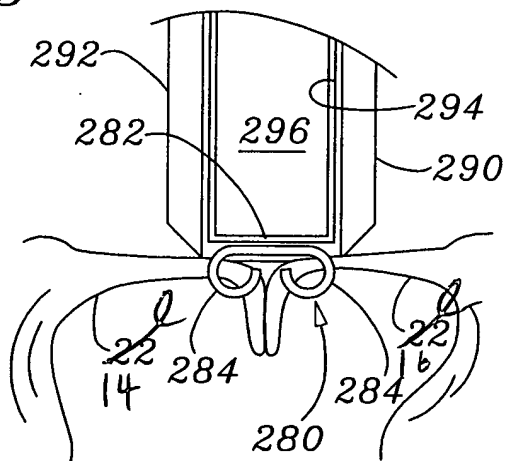


Fig. 9B

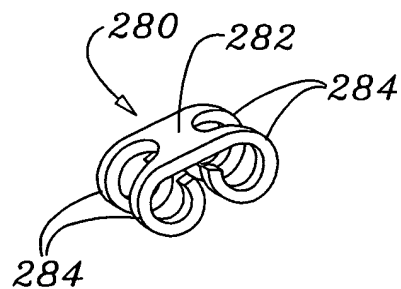
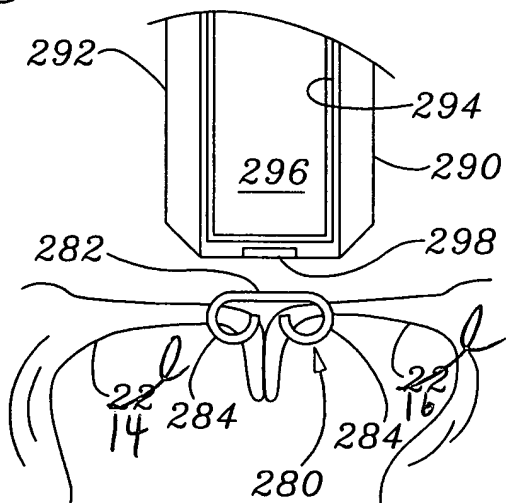


Fig. 10C





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Fig. 11

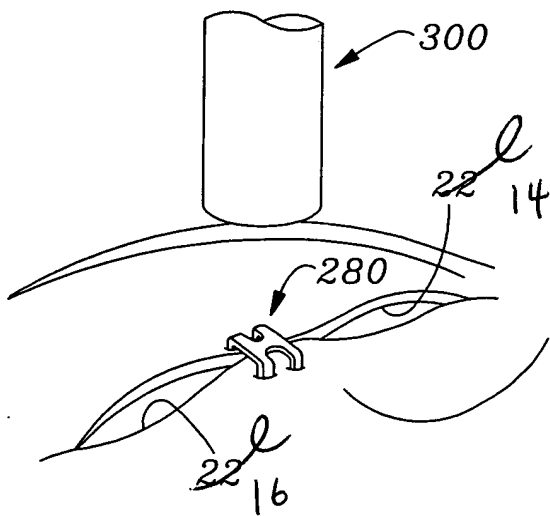
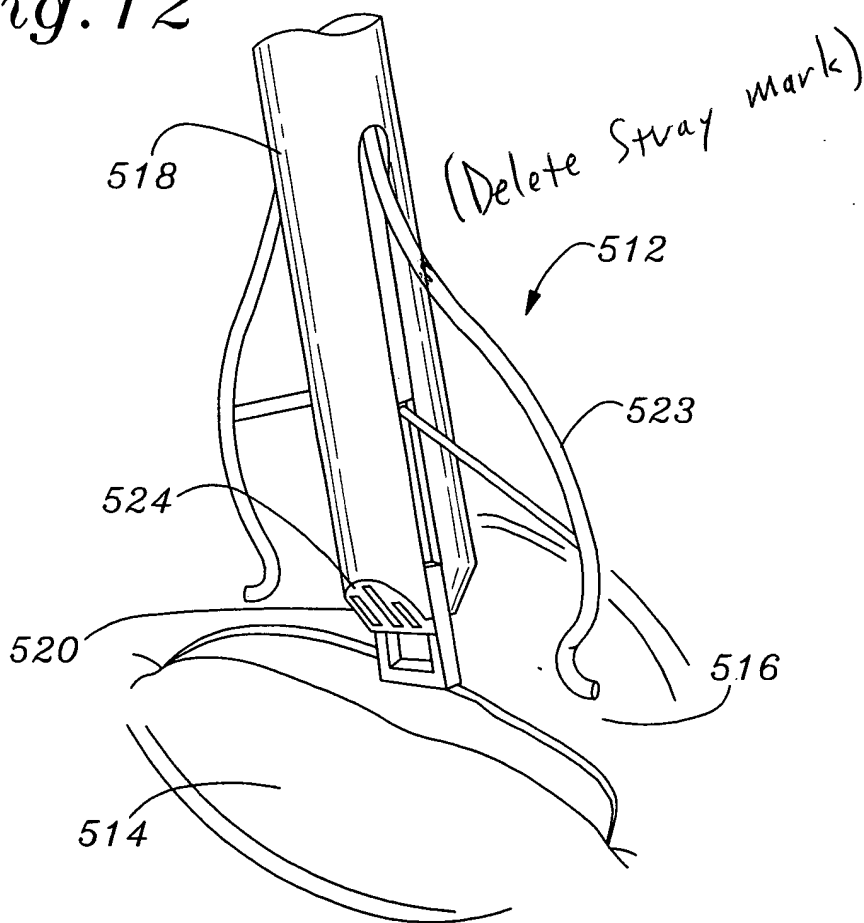


Fig. 12

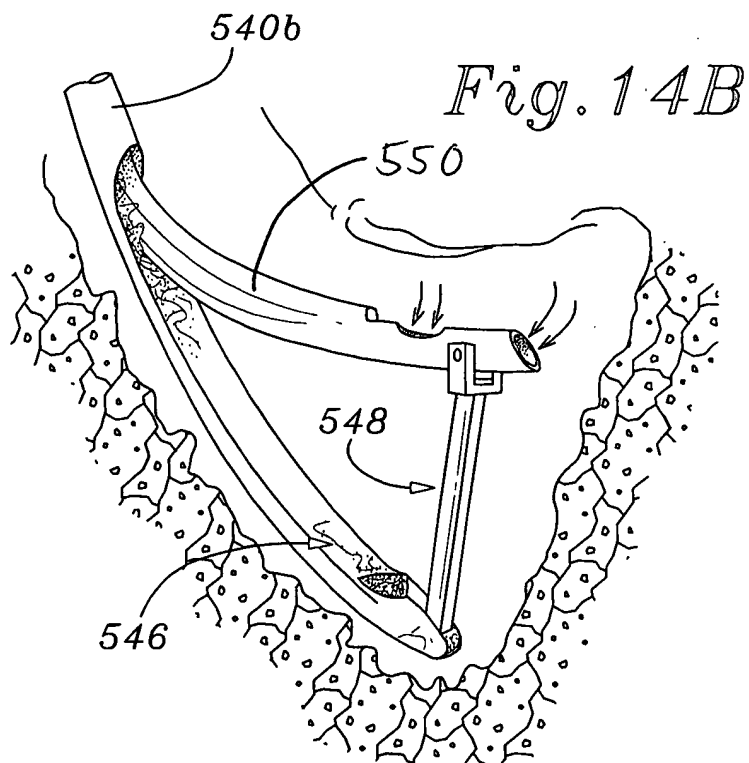
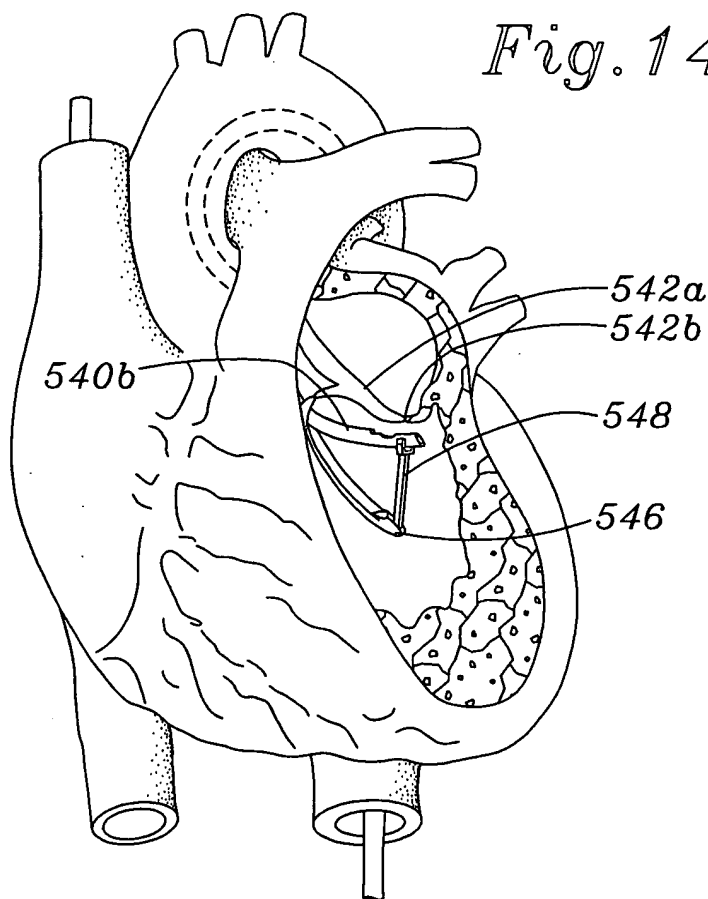






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Fig. 14A



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Fig. 15

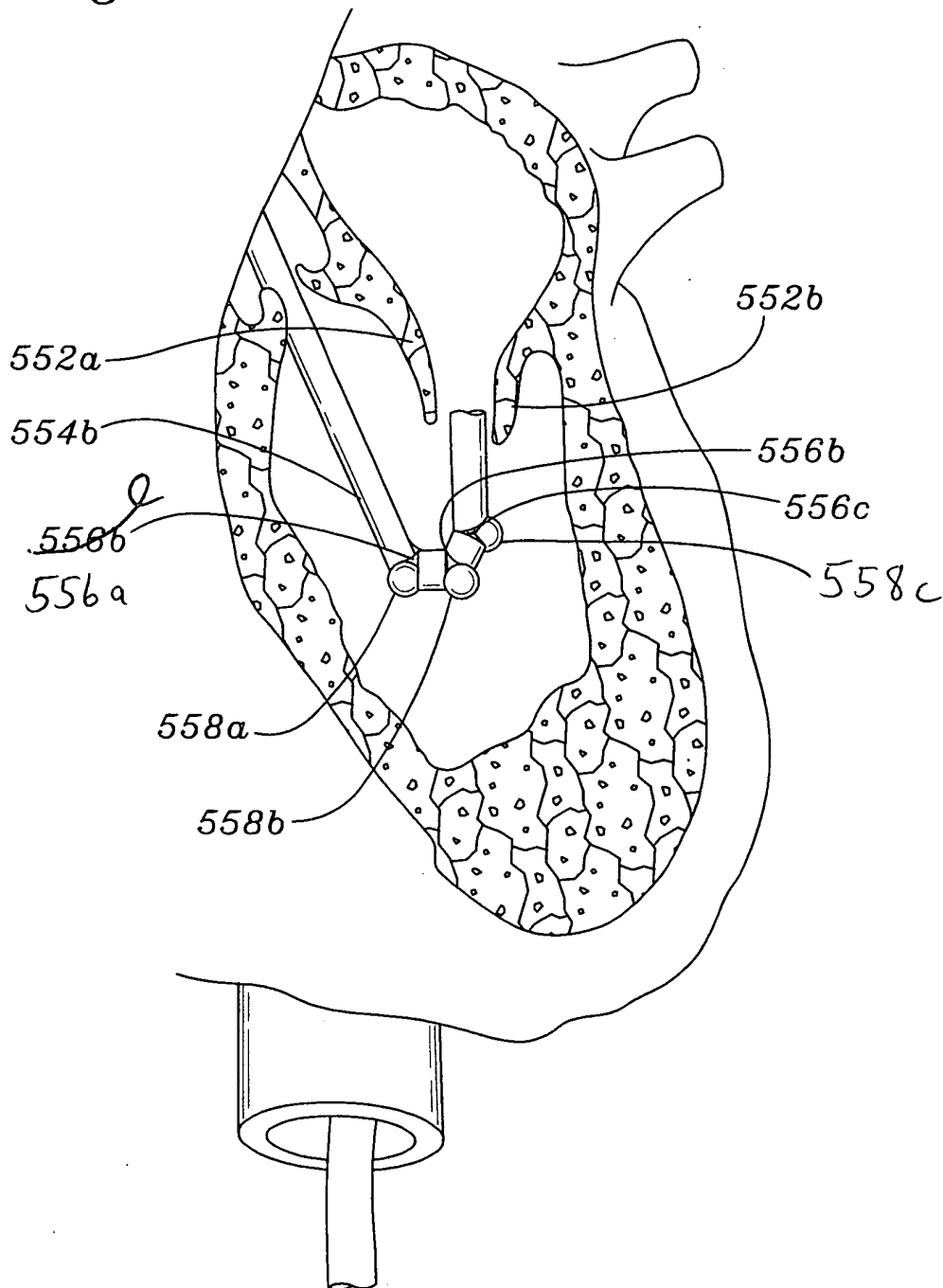




Fig. 16A

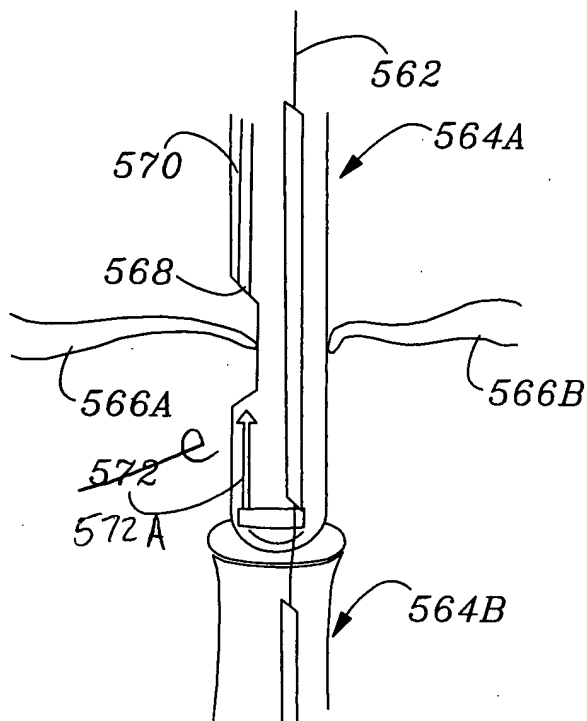


Fig. 16B

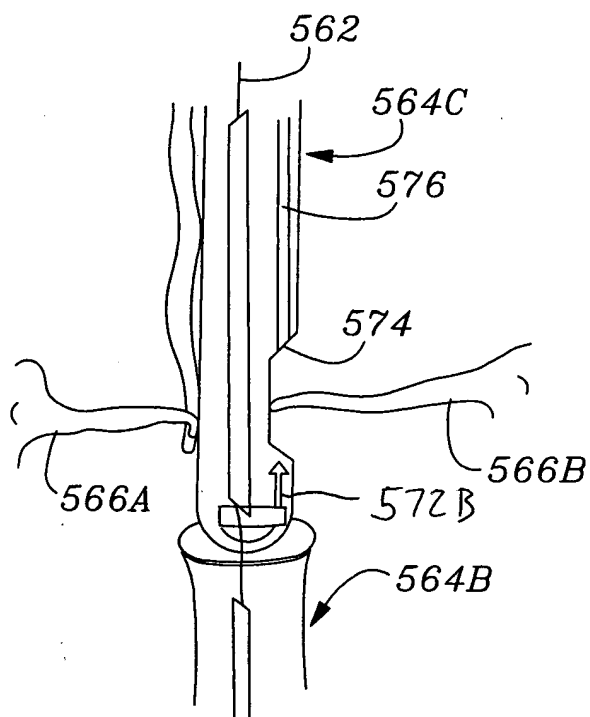


Fig. 16C

